

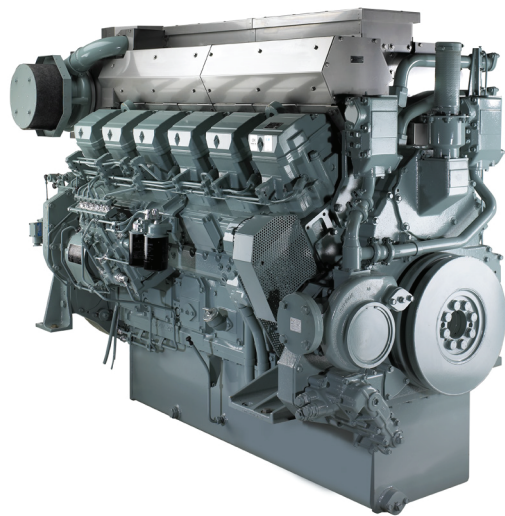
S12R-MPTAW

840 - 1270 kW | MARINE GENERATOR

IMO TIER III

MITSUBISHI MARINE ENGINE

RELIABLE MECHANICAL ENGINE



ENGINE DATA

Engine model	S12R-MPTAW
Cylinder configuration	12/60°V
Total displacement	49.03
Bore x stroke (mm)	170 x 180
Flywheel and housing	SAE 21 / SAE 00
Compression ratio	14.5:1
Dry weight (kg)	5320

Method of operation

4-stroke, water-cooled diesel engine, with direct-injection, turbocharger, air-cooler and exhaust after-treatment by SCR

Cooling method

separate high and low temperature cooling circuit; charge air cooler by closed freshwater system controlled by thermostat (intercooler)

RATING ^{1,2}

Application	Diesel-Electric Propulsion			Auxiliary Generator			Harbour Emergency Generator		
Rating	DEP	DEP	DEP	Prime	Prime	Prime	Prime	Prime	Prime
Output (kW)	840	1120	1154	840	1120	1270	840	1120	1270
Output (bhp)	1126	1501	1548	1126	1501	1702	1126	1501	1702
Engine speed (rpm)	1200	1500	1800	1200	1500	1800	1200	1500	1800
Gross torque (Nm)	6685	7130	on request	6685	7130	6738	6685	7130	6738
Fuel consumption 100% load (g/kWh) ³	195	210	on request	195	210	224	195	210	224
Fuel consumption 75% load (g/kWh) ³	199	209	on request	199	209	220	199	209	220
Fuel consumption 50% load (g/kWh) ³	205	215	on request	205	215	228	205	215	228
Emissions	IMO Tier III								

¹ For rating definitions, please see our website.

² Atmospheric condition: barometric pressure: 100kPa, ambient temperature: 298K, relative humidity: 30%.

³ Fuel consumption is based on ISO3046/1 with +5% tolerance at rated power, weighing 836 g/liter and a LHV of 42,780 kJ/kg, excluding pump. Average fuel consumption recommended by ISO8178 (E3 standard test cycle for propulsion application FPP).

STANDARD AND OPTIONAL EQUIPMENT

STANDARD EQUIPMENT

Fuel system

- Flexible fuel supply - and return hoses
- Fuel feed pumps
- Fuel fine filters, change-over type
- Fuel injection pumps
- Dual walled high-pressure fuel lines
- Fuel injectors

Lubricating oil system

- Wet type oil pan with inspection covers
- Oil pressure pump, gear driven
- Lubricating oil filters, change-over type
- By-pass filter
- Oil cooler with thermostat

Starting and electrical system

- Electric starter (Earth floated 24V)
- Alternator, 30 Amps.
- Stop solenoid (ETS)

Cooling system

- Freshwater pump including piping and thermostat (HT)
- Cooling water pipe on thermostat housing (HT)
- Front pulley PTO standard

Air inlet system

- Mitsubishi turbochargers

- Air inlet silencers with pre-cleaner
- Inlet air aftercoolers or intercoolers
- Inlet manifolds or ducts

Exhaust system

- Stainless steel insulation (SOLAS)

SCR after-treatment system

- SCR reactor
- Injection unit
- Dosing unit
- Shoot blower system
- Control system

Other

- Mounting brackets for rigid mounting
- Flywheel and housing, SAE standard
- Torsional vibration damper

Fuel system

- Drip tray fuel filters

Lubricating oil system

- Pre-lubrication oil system
- Drip tray fuel filters

Monitoring system

- Complete digital monitoring system
- Sensor package; sensors mounted on engine with terminal box

Starting and electrical system

- Air starter motor (30 bar)

Cooling system

- Cooling system with freshwater pump, V-belt including piping and thermostat (LT)
- Big capacity front PTO
- Cooling water heater with circulation pump

Exhaust system

- Flexible expansion joint
- Horizontal exhaust instead of vertical

SCR after-treatment system

- Urea pump unit

OPTIONAL EQUIPMENT

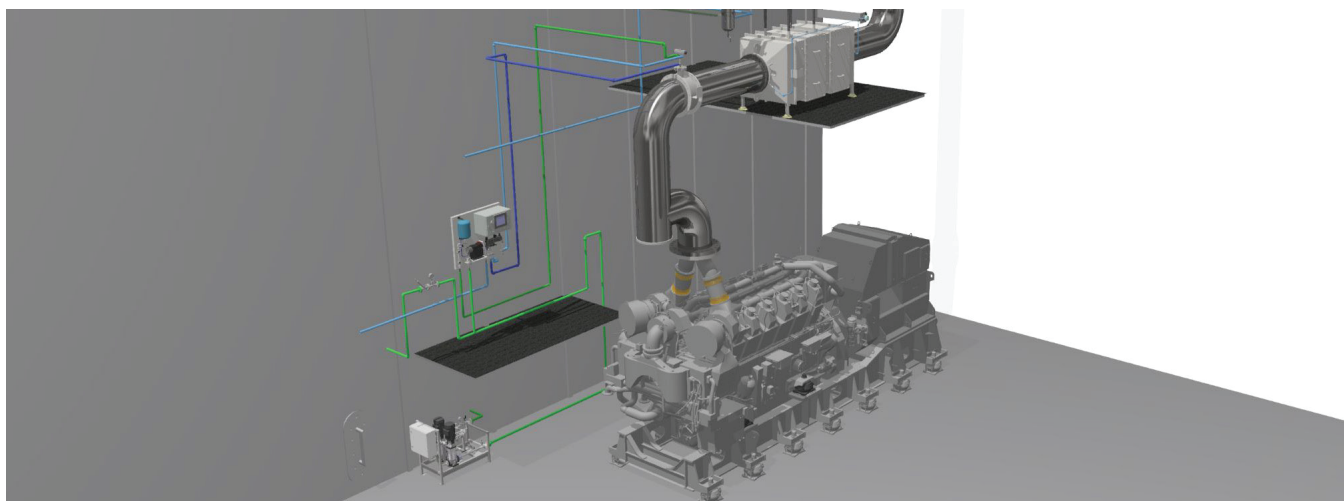
Classification

We are cooperating with many of the major classification societies.

Governor (mandatory)

- Hydraulic governor
- Electronic governor, with speed control box

DIMENSIONS



Dimensions	1500 and 1800 rpm	1200 rpm
Engine L x W x H (mm)	2416 x 1585 x 1807	2416 x 1585 x 1807
SCR unit (Horizontal or vertical) size (excl. insulation) L x W x H (mm)	1041 x 1036 x 2504	893 x 882 x 2349
Mixing pipe requirements diameter (DN)*	500	400
Mixing pipe length (mm)*	2500	2700

* Insulation of the SCR system is not included in the scope of supply, to be supplied and installed by the shipyard.

More information

Contact your local dealer for more information regarding Mitsubishi Marine Engines and optional equipment or, visit www.mtee.eu

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